



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

**Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.env.nm.gov**



BUTCH TONGATE
Cabinet Secretary

J.C. BORREGO
Deputy Secretary

Certified Mail - Return Receipt Requested

July 19, 2017

Mr. Frank Tafoya, Village Manager
Village of Angel Fire
Post Office Box 610
Angel Fire, New Mexico 87710

**Re: Village of Angel Fire Wastewater Treatment Plant; Minor; Individual Permit; SIC 4952;
Compliance Evaluation Inspection; NPDES Permit NM0030503; June 29, 2017**

Dear Mr. Tafoya:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

David Long
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place
1445 Ross Avenue
Dallas, Texas 75202-2733

Sarah Holcomb
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

Village of Angel Fire

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If you have any questions about this inspection report, please contact Sandra Gabaldon at (505) 827-1041 or at sandra.gabaldon@state.nm.us.

Sincerely,

/s/ Sarah Holcomb

Sarah Holcomb, Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: David Long, USEPA (6EN-WM) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Darlene Whitten-Hill, USEPA (6EN-WC) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
NMED District II, Robert Italiano, Manager, by e-mail



NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3 N M 0 0 3 0 5 0 3	1 7 0 6 2 9	18 C	19 S	20 1	
M I N O R	W W T P				
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 69	70 2	71 N	72 N	73 74	75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Village of Angel Fire WWTP - NM HWY 434 to Angel Fire, at milepost 35 turn east on Camino Grande and go 0.5 mi, Turn left on service road and go 0.6 miles (past solid waste facility) to WWTP. COLFAX COUNTY	Entry Time /Date 1010 Hours/ June 29, 2017	Permit Effective Date November 01, 2007
	Exit Time/Date 1245 Hours / June 29, 2017	Permit Expiration Date October 31, 2012 (administratively continued).
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Amos Torres, Public Works Director / (575) 377-2305/ Cell: (505) 603-3706 Arwin Vasquez, Utilities Superintendent / (575) 377-1674 / Cell: (575) 595-5190	Other Facility Data Lat. N 36 25 11.63 Long W -105 16.44.21 SIC 4952	
Name, Address of Responsible Official/Title/Phone and Fax Number Rick Tafoya, Village Manager Village of Angel Fire Post Office Box 610 Angel Fire, NM 87710 (575) 377-1671 / Fax (575) 377-8028	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	M	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	M	Self-Monitoring Program	U	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	M	Laboratory	N	Storm Water		Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

Please see checklist and further explanations for details of findings

Name(s) and Signature(s) of Inspector(s) Sandra Gabaldon /s/ Sandra Gabaldon	Agency/Office/Telephone/Fax NMED/SWQB/(505) 827-1041/(505) 827-0160	Date 07/19/2017
Signature of Management QA Reviewer /s/ Sarah Holcob Sarah Holcomb, Program Manager	Agency/Office/Phone and Fax Numbers NMED/SWQB/(505) 827-2795/(505) 827-0160	Date 07/19/2017

SECTION A – PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS

T S M U NA (FURTHER EXPLANATION ATTACHED NO)

DETAILS: Permit Expired 10/31/2012. EPA is currently working on their permit.

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE

T Y N NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES

O Y N T NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT

T Y N NA

4. ALL DISCHARGES ARE PERMITTED

T Y N NA

SECTION B – RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT.

O S T M U NA (FURTHER EXPLANATION ATTACHED YES)

DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.

T Y N NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.

O S T M U NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING

T Y N NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING

T Y N NA

c) ANALYTICAL METHODS AND TECHNIQUES.

O Y T N NA

d) RESULTS OF ANALYSES AND CALIBRATIONS.

T Y N NA

e) DATES AND TIMES OF ANALYSES.

T Y N NA

f) NAME OF PERSON(S) PERFORMING ANALYSES.

T Y N NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.

O S T M U NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.

O S T M U NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.

O Y T N NA

SECTION C – OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED.

S T M U NA (FURTHER EXPLANATION ATTACHED YES)

DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.

T S M O U NA

2. TREATMENT UNITS PROPERLY MAINTAINED.

T S M O U NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.

T S M O U NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.

T S M O U NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE

S T M O U NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.

T S M O U NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.

T S M U NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.

T Y N NA

STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.

T Y O N NA

PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.

O Y T N NA

SECTION C – OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? Y T N NA
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? Y N T NA
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? Y O N T NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? Y T N NA
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? Y N T NA

SECTION D – SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. S T M U NA (FURTHER EXPLANATION ATTACHED YES.)
 DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. Y N NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. Y N NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. Y N NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. Y N NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. Y N NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE Y N NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. Y T N NA

b) PROPER PRESERVATION TECHNIQUES USED. Y T N NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. Y N NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? Y T N NA

SECTION E – FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. S T M U NA (FURTHER EXPLANATION ATTACHED YES.)
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N T NA
 TYPE OF DEVICE: No primary device installed at outfall, only secondary inline flow meter

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. Y N NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. Y N NA

4. CALIBRATION FREQUENCY ADEQUATE. Y T N NA
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES. Y T N NA
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. Y T N NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. Y N T NA

6. HEAD MEASURED AT PROPER LOCATION. Y N T NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. Y N NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. S T M U NA (FURTHER EXPLANATION ATTACHED YES)
 DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES) Y T N NA

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED Y N T NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. O S O M T U NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. O S T M U NA

5. DUPLICATE SAMPLES ARE ANALYZED. 0 % OF THE TIME. O Y T N NA

6. SPIKED SAMPLES ARE ANALYZED. 0 % OF THE TIME. Y T N O NA

7. COMMERCIAL LABORATORY USED. T Y N NA

LAB NAME Town of Red River Interlab Bio-Aquatics

LAB ADDRESS NM HWY 38, Red River, NM 87558 PO Box 3497, Las Cruces, NM 2591 Mayes Road, Carrollton, TX

PARAMETERS PERFORMED E. coli BOD, TSS, Al Biomonitoring

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. T S M O U NA (FURTHER EXPLANATION ATTACHED YES.)

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	Non	None	None	None	None	clear	

RECEIVING WATER OBSERVATIONS Receiving water had a slightly milky white color

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. O S M T U NA (FURTHER EXPLANATION ATTACHED: YES)
 DETAILS: Permittee could not provide any DMRs for their sludge disposal. Final disposal - Landfill

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. O S T M U NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. O S M T U NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: N/A (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED _).

1. SAMPLES OBTAINED THIS INSPECTION. Y N T NA

2. TYPE OF SAMPLE OBTAINED
 GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____

3. SAMPLES PRESERVED. Y N NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. Y N NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. Y N NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. Y N NA

7. SAMPLE SPLIT WITH PERMITTEE. Y N NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. Y N NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. Y N NA

Angel Fire Wastewater Treatment Plant
NPDES Permit NM0030503
Compliance Evaluation Inspection
Inspection Date: June 29, 2017

Introduction:

On June 29, 2017, Sandra Gabaldon and Daniel Valenta of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Angel Fire Wastewater Treatment Plant (WWTP).

The Angel Fire WWTP has a design capacity of 0.5 MGD and is classified as a minor discharge facility under the Federal Clean Water Act (CWA), Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0030503. This permit regulates the WWTP discharge to Cieneguilla Creek in Segment 20.6.4.309 of the Canadian River Basin per the *New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC*. This segment includes the designated uses of domestic water supply, irrigation, high quality coldwater aquatic life, livestock watering, wildlife habitat, and primary contact; and public water supply on specific segments.

The NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (US EPA), Region VI, under the NPDES permit program, in accordance with the Federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program, which regulates point source discharges to surface waters. This inspection report is based on information provided by the permittees' representatives, observations made by the NMED inspectors and records and reports kept by the permittee and/or NMED.

Upon arrival at the WWTP at 1010 hours on June 29, 2017, the inspectors met with Arwin Vasquez, Utility Superintendent, along with Mr. Amos Torres, Public Works Director. Ms. Gabaldon presented her federal credentials and explained the purpose of the inspection. A review of the records and the laboratory was conducted after a tour of the facility. An exit interview was conducted with Mr. Vasquez and Mr. Torres at the WWTP following the inspection. Preliminary findings were provided to both Mr. Vasquez and Mr. Torres and it was explained that these were just preliminary findings and the report would have a detailed description of all findings after all records were reviewed. The inspectors completed their inspection at approximately 1245 hours.

Treatment Scheme:

The Angel Fire WWTP is a Sequential Batch Reactor (SBR) system with ultra-violet (UV) disinfection that began operation in November 1999. The plant design capacity is 0.5 MGD and the average influent flow rate is currently approximately 0.15 MGD with the maximum influent flow rates increased in the Winter months to approximately 0.3 MGD. In addition to the SBR system, this facility has a synthetically lined lagoon that is used to store effluent prior to discharge to either the receiving stream (Cieneguilla Creek) or to a land application area. The Village of Angel Fire has a ground water permit, DP-56, issued by the State of New Mexico, Ground Water Quality Bureau (GWQB), for any discharges that are done to designated land application sites.

Wastewater is pumped by three lift stations in the Village to a large lift station south of the SBR plant. A septage hauling dump station is provided for septic haulers at the headworks.

The lift station pumps the influent up the facility where it can be diverted to either of the two reactor basins, each of which is equipped with a decant arm. Currently, only one basin is being used for influent wastewater treatment. The other basin is currently being used for treatment and storage of sludge.

The SBR system works on a four (4) hour cycle that includes: Aeration, settling, and decant. The cycle is controlled by a computerized control system (Cutler-Hamond Panel Mate). After final treatment in the SBR basin, wastewater enters the UV system for disinfection. The UV system (Aqua Ray 40) consists of five banks of lights situated over a concrete channel. Wastewater leaves the UV channel, and either enters the WWTP lagoon or flows through a pipe to the effluent pump house located near the outfall. The pump house and outfall pipe are located off Flamingo Road south of the WWT.

The pump house contains both an in-line flow meter to measure effluent flow and a sampling port to collect effluent samples directly from the pipeline. The effluent pipe leaves the pump house and discharges to outfall 001, a short distance away. The pipe comes directly out of the stream bank under a culvert and discharges to Cieneguilla Creek.

Sludge:

Waste activated sludge (WAS) from the SBR basin is first stored in the unused reactor basin before it goes into the aerobic digester. The digester is situated on the south side of the reactor basin. Sludge from the digester previously was sent to the sludge belt press, but currently, the belt press is inoperable and has not been used for approximately one year. The belt press is in a building next to the SBR basins. Once the sludge is sent through the belt press, it is placed in a roll off bin that is being stored on site until a contract with the Wagon Mound Landfill is

completed and can be trucked there for final disposal. It was previously sent to Rio Rancho for final disposal.

Further Explanations:

Note: The sections are arranged according to the format of the enclosed EPA inspection checklist (Form 3560-3), rather than being ranked in order of importance.

Section A – Permit Verification – Overall Rating – “Satisfactory”

The facility is operating under an “administratively continued” permit. The permit for this facility expired on October 31, 2012. The new permit has gone through the public comment phase and should be issued relatively soon.

OF NOTE: EPA NEEDS TO DETERMINE IF THE FINAL TREATMENT UNIT IS THE RETENTION POND OR THE UV SYSTEM. THE PERMITTEE HAS REPORTED SAMPLES FROM BOTH LOCATIONS (UV TROUGH AND OUTFALL – AFTER RETENTION POND). THE PERMITTEE IS REQUIRED TO SAMPLE FOR ALUMINUM QUARTERLY AND HAS BEEN TAKING THE SAMPLE AT THE UV TROUGH AND REPORTING OTHER PARAMETERS AS “NO DISCHARGE”.

Section B – Recordkeeping and reporting – Overall rating – “Unsatisfactory”

The permit requires, in part III.C.4, Records Contents:

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;*
- b. The individual(s) who performed the sampling or measurements;*
- c. The date(s) and time(s) analyses were performed;*
- d. The individual(s) who performed the analyses;*
- e. The analytical techniques or methods used; and*
- f. The results of such analyses.*

In Part IV of the permit, it states:

Discharge Monitoring Reports and Other Reports:

Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. However, the EPA published the electronic reporting rule in the federal register (80 FR 64063) on October 22, 2015. The rule became effective on December 21, 2015. One year after the effective date of the final rule, NPDES regulated entities that are required to submit DMRs (including majors and non-majors, individually permitted facilities and facilities covered by general permits) must do so electronically. All DMRs shall be electronically reported effective December 21, 2016, per 40 CFR 127.16.

Findings for Recordkeeping and Reporting:

The permittee could not provide sludge Discharge Monitoring Reports (DMRs), which are required to be kept and available to EPA, or the state inspectors, for five years.

The permittee could not provide DMRs for their yearly Whole Effluent Toxicity Testing. The permittee provided DMRs for 2014, 2016, and 2017.

The permittee does their pH analysis onsite. Their pH bench sheets do not provide the analytical techniques or methods being used. The pH bench sheet only states "pH test #2, pH test #3".

40 CFR 136.3 lists the following methods approved for analyses of pH:

Parameter	Methodology	EPA	Standard methods	ASTM	USGS/AOAC/Other
Hydrogen ion (pH), pH units	Electrometric measurement		4500-H + B-2000	D1293-99 (A or B)	973.41, I-1586-85.
	Automated electrode	150.2 (Dec. 1982)			See footnote, ²¹ I-2587-85. ²

Section C – Operation and Maintenance: - Overall rating – “Marginal”

The permit requires, in Part III.B.3.a, Proper Operation and Maintenance:

- a. *The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires that operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*

Findings for Operation and Maintenance –

The belt press at the facility has been inoperable for approximately one (1) year. The belt press is necessary to achieve approximately 18% solids prior to land fill disposal. The land fill also requires a paint filter test prior to disposal to ensure that the material being accepted has no free

liquids. Currently, the facility has the waste stored in a roll off container. They are awaiting a contract with the Wagon Mound landfill.

The sludge injector pump is nonfunctional as well. Again, this is a necessary component of wasting the sludge.

The facility has two blowers; one is nonfunctional.

Section D – Self-Monitoring – Overall Rating of “Marginal”

The Permit requires in Part III.5 – Monitoring Procedures:

- a. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.*
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.*
- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.*

The permit requires in Part III.5 Additional Monitoring by the Permittee:

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

Findings for Self-Monitoring

The permittee sends their E.coli samples to the Red River Wastewater Treatment Plant for analysis. On the chain of custody, temperature is not provided. The Village of Angel Fire does not take the temperature prior to sending the sample to the Red River WWTP for analysis. It is unclear if the sample temperature is kept <10°C and the sample preserved with sodium thiosulfate.

The chain of custody forms from Interlab do not provide temperature of samples upon arrival nor do they state that the Aluminum sample has been preserved.

Because these samples do not provide the necessary temperatures/preservation, they may be invalid for compliance purposes.

From the pH bench sheets provided by the permittee, pH is sampled more often than twice a month, but is not reported. For example, the pH bench sheet has samples taken on February 7, 14, 24th as follows:

DATE:	pH calibration	pH Results
February 7, 2017	4.16, 7.15, 10.20*	8.70 (outfall)**
	4.34, 7.17, 10.09*	8.66 (outfall)**
		7.83 (UV Trough)**
		7.64 (UV Trough)**
February 14, 2017	4.13, 7.03, 10.14*	8.25 (outfall)**
	4.01, 7.02, 10.09*	8.36 (outfall)**
February 24, 2017	4.21, 7.02, 10.18*	8.04 (outfall)**
	4.30, 7.25, 10.20*	8.59 (outfall)**

The permittee reported that two samples were taken for the month of February 2017. In fact, a total of eight (8) samples were analyzed.

**Standard Methods, 21st states: "If the meter shows a difference greater an 0.1 pH unit from expected value, look for trouble with the electrodes or potentiometer."*

***The permit states, "Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the **final treatment unit** prior to the discharge into the receiving stream from the following approximate location: Outfall 001."*

Section E – Flow Measurement – Overall Rating of "Unsatisfactory"

Permit requires in Part III, C.6 Flow measurement:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings for Flow Measurement:

The permittee has no primary flow measurement device at the effluent outfall. They have an in-line flow meter at the outfall. However, this has not been calibrated since 2007. Accuracy and reliability of their flow meter is important in providing mass loading calculations on their DMRs.

Section F – Laboratory – Overall Rating of “Marginal”

Permit requires in Part III, C.5 Monitoring Procedures:

- a. An adequate analytical quality control program, including the analysis of sufficient standards, spikes and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.*

Findings for Laboratory:

It appears that the permittee has failed to do 10% duplicate sampling as part of their quality control procedures. The purpose of laboratory control procedures is to ensure high-quality analyses using control samples, control charts, reference materials, and instrument calibration. The permittee must initiate and maintain controls throughout the analysis of samples. Specifically, each testing batch must contain at least one blank, standard, duplicate, and spiked (as applicable) sample analysis. When a batch contains more than 10 samples, every tenth sample should be followed by a duplicate and a spike (as applicable).